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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Etienne de Fontenay

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EXAMINER

WILLIAMS, THOMAS J

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/824,892	Applicant(s) DE FONTENAY ET AL.	
	Examiner Thomas J. Williams	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 1,4-8 and 10-18 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgment is made in the receipt of the amendment filed December 19, 2007.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 4 recites the limitation "said at least one sealed volume" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites only "a sealed volume" and makes no suggestion that a plurality of sealed volumes may exist.

5. Claim 5 recites the limitation "said at least one sealed volume" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

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do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1, 4, 6, 10-13 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,435,486 to Maier.

Re-claim 1, Maier discloses a hydroelastic joint, comprising: an external reinforcement 2 and an internal reinforcement 3; an intermediate reinforcement 2; a hydroelastic spring is disposed between the external and intermediate reinforcement and permits relative transverse displacement, the assembly comprises a first elastically deformable element shaped to delimit (or define) between the external reinforcement 2 and the intermediate reinforcement 1 a sealed volume containing a damping fluid (the volume between elements 1 and 2 constitutes a sealed volume); a plurality of longitudinal bosses (interpreted as protuberances separating the sealed volume into two chambers 8a and 8b, or 7a and 7b for figure 4) separates the sealed volume into two chambers; a second elastically deformable element is located between the intermediate element 1 and internal reinforcement 3, the longitudinal dimension of the second elastic spring is less than that of the first elastic spring (see figure 4), the longitudinal dimensions of the first and second elastic deformable elements (or springs) are defined as an axial dimension of a portion that substantially fills a radial space between the corresponding reinforcements; wherein the intermediate reinforcement 1 is disposed between the first 4 and second 5 elastically deformable elements, the first and second elastically deformable elements adhere on a central portion with a

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constant cross-section of the intermediate reinforcement, and the second elastically deformable element adheres on a central portion with a constant cross-section of the internal reinforcement.

Re-claim 4, see the end walls defining the sealed chamber and reinforcement element located in the end walls.

Re-claim 6, see flow connections 9a and 9b.

Re-claim 10, each elastically deformable element has a different rigidity, see column 3 lines 4-6.

Re-claims 11 and 12, the sealed volume chamber is divided into the plurality of chambers 8a and 8b according to a first transverse direction defining a hydraulic damping direction, the first and second transverse direction are parallel, which forms an angle of zero degrees.

Re-claim 13, the second elastically deformable element has recesses at each axial end that are broadly interpreted as cells.

Re-claim 16, the external reinforcement 2 abuts at least one of the pieces of the structure.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maier in view of US 5,439,203 to Hadano.

Maier fails to teach the first elastically deformable element fixed without adhesion to the adjacent reinforcement members, but rather teaches vulcanizing the element to the reinforcement members. Hadano teaches an elastically deformable element press fitted to adjacent reinforcement elements. This type of construction is functionally equivalent to the method used by Maier, in that both fix the elastically deformable element to adjacent reinforcement members. It would have been obvious to one of ordinary skill in the art to have press fitted the first elastically deformable element of Maier to the adjacent reinforcement members as taught by Hadano, as this would have yielded a predictable result of the elastically deformable element being adhered to the adjacent reinforcement members as intended by Maier.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maier in view of US 5,516,083 to Sprang et al.

Maier fails to teach a valve lip associated with the longitudinal boss and communication passage between the sealed chambers. Sprang et al. teach a hydroelastic joint having a plurality of sealed chambers connected through a valve lip, for providing some resistance to fluid transfer and thereby modifying the damping characteristics of the joint as desired. It would have been obvious to one of ordinary skill in the art to have provided the communication port associated with each boss of Maier with a valve lip as taught by Sprang et al., as this is an engineering

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expedient, thus yielding a predictable result for modifying the damping characteristic of the hydroelastic joint as desired.

12. Claims 8, 14, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maier in view of Mayerbock et al.

Re-claim 8, Maier teaches a limit stop 6b projecting at substantially a center of the first chamber. However, Maier fails to teach a second limit stop located in the second chamber.

Mayerbock et al. teach a hydroelastic joint having a first and second sealed volume chamber, wherein each sealed chamber is provided with a limit stop, see figure 1 (the projection located in chambers 12 and 13 is a limit stop). It would have been obvious to one of ordinary skill in the art to have provided in the second sealed volume chamber of Maier with a second limit stop as taught by Mayerbock et al., so as to provide a means for addressing any excessive radial loading experienced by the joint during use.

Re-claim 14, Maier teaches at least one of the elastically deformable elements is attached during a vulcanization process. However, Maier is silent regarding the method of attachment for the other elastically deformable element, and whether the attachment is achieved in a single moulding step.

Mayerbock et al. teach a hydroelastic joint in which the first and second elastic elements are obtained in a single moulding step (such as vulcanization), thus saving manufacturing time. It would have been obvious to one of ordinary skill in the art when having manufactured the assembly of Maier to have done so such that the first and second elastic elements would have been obtained in a single moulding step as taught by Mayerbock et al., thus reducing manufacturing time and costs.

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Re-claims 17 and 18, Maier teaches the joint used in a suspension of a vehicle. However, Maier fails to teach the specifics of the vehicle. Mayerbock et al. teaches a hydroelastic joint used in a vehicle having an axle and beam bearing. It would have been obvious to one of ordinary skill in the art to have utilized the joint of Maier on a vehicle as taught by Mayerbock et al., thus damping the transmission of vibrations to the occupants of the vehicle.

13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maier in view of Gautheron.

Gautheron teach a joint with an internal reinforcement 10/11 with an enlarged end portion 6 used to provide an annular reinforcement for the adjacent elastomeric element. It would have been obvious to one of ordinary skill in the art to have provided the internal reinforcement of Maier. with an enlarged end support surface as taught by Gautheron, thus providing an additional support surface for the adjacent elastic member.

Allowable Subject Matter

14. Claim 19 is allowed.

15. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

16. Applicant's arguments filed December 19, 2007 have been fully considered but they are not persuasive. It is the opinion of the examiner that the cross section of each reinforcement member of Maier is constant. As understood by the examiner this recitation is specific to embodiment described in instant figures 1 and 2. Furthermore, the elastically deformable

elements are in fact adhered to each of these reinforcement members and as such meet the limitations set forth in the claims. The fact that Maier discloses a hydroelastic spring as the inner spring is not relevant to the claim language. The claim merely requires an elastically deformable element forming an elastic spring, a function that the hydroelastic spring will perform. With regards to the longitudinal dimension, the applicant's attention is directed to figure 4. The depth of each annular recess located at respective ends of the inner spring is greater than the depth of the annular recess associated with the outer spring. As such the longitudinal dimension of the inner spring is less than the longitudinal dimension of the outer spring.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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18. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128.

The examiner can normally be reached on Wednesday-Friday from 6:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached at 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

/Thomas J. Williams/
Primary Examiner, Art Unit 3683

January 29, 2008